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Bill Grubba

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EXAMINER

ADDIE, RAYMOND W

ART UNIT

PAPER NUMBER

3671

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,849

Applicant(s)

GRUBBA, BILL

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/07/05</u> . | 6) <input type="checkbox"/> Other: _____ |

AS

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5-7, 11, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by

Sehr et al. # 5,258,961.

Sehr et al. discloses a paving machine (1) having a vertically adjustable drag box (4) comprising a shearing device (4), and a distribution device (8).

The paving machine further comprising: A proximity control device (6) having a

hydraulic cylinder, at least 3 ultrasonic signal generators (10, 11, 12), at least one signal receiver (15-21) associated with said signal generators and said proximity control device.

Said proximity control device being able to directly raise and lower the shearing device (8) with respect to changes in the elevation of a reference surface, which may be the ground, old concrete or newly laid concrete. See Col. 2, ln. 37-col. 4, ln. 18.

In regards to Claims 11, 12 Sehr et al. discloses the shearing device (8) is able to be proportionally raised or lowered in response to elevational changes in the reference surface, wherein the signals generated by the generators (10-12) are averaged by at least one of the signal receivers. See col. 4, lns. 2-18.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9, 11-15, 20, 22-24, 26, 27 rejected under 35 U.S.C. 103(a) as being

unpatentable over Horner # 6,554,080 B2 in view of Middleton et al. # 4,924,374.

Horner discloses a drag box (28) for placing an asphalt mixture on a surface (22) said drag box comprising:

A 1st device (36) for distributing said asphalt mixture over said surface.

~~A 2nd distributing device (28) for further distributing the paving material.~~

A shearing device (38) for further spreading said asphalt mixture over said surface (22).

A proximity control device (30/32) for independently raising respective outer ends of the shearing device (38).

What Horner does not disclose is the use of a distance measuring device able to raise and lower the shearing device in response to changes in the surface (22).

However, Middleton et al. teaches it is known to provide a plurality of ultrasonic transceivers (10) to the outer ends of a blade (280) of a grader (30) or paver (180), such that the ultrasonic transceivers are able to produce repeated signals indicative of the elevation of a ground surface (170/300), which is used as a reference surface. Said ultrasonic transceivers being associated with at least one signal receiver (85) to raise

and lower the shearing device (38) via a proximity control device (50/60), in response to signals indicative of the height of the reference surface. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the drag box of Horner, with an ultrasonic height control assembly, as taught by Middleton et al., in order to increase the smoothness of the formed asphalt. See Middleton et al. col. 6, ln. 48-col. 7, ln. 19; Col. 23, ln. 44-col. 24, ln. 44.

In regards to Claims 2-4 Horner discloses a prime mover (10) is utilized to pull the drag box (28), which also comprises confinement ends, in the form of skis (192). See Figs. 1-3.

In regards to Claims 5-7 Horner discloses the proximity control device can be in the form of at least one cylinder (30/32) for raising and lowering the shearing device; but does not disclose the use of sonar generators and receivers. However, Middleton et al. teaches it is known to provide a plurality of ultrasonic transceivers (10) to the outer ends of a blade of a prime mover (180), said ultrasonic transceivers being associated with at least one signal receiver (85) to raise and lower the shearing device (38) via a proximity control device (50/60), in response to signals indicative of the height of the reference surface.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the drag box of Horner, with an ultrasonic height control assembly, as taught by Middleton et al., in order to increase the smoothness of the formed asphalt. See Middleton et al. col. 6, ln. 48-col. 7, ln. 19.

In regards to Claim 9 Horner discloses the shearing device can be in the form of a strike blade (124), having a lower edge (122) that "determines the thickness or depth of the layer of materials formed by the shearing device". See col. 5, lns. 7-20.

In regards to Claims 11-15 Horner discloses an extendable drag box; as put forth above with respect to claims 1, 3 but does not disclose the use of an ultrasonic height control assembly. However, Middleton et al., teaches it is desirable to provide a shearing device (40/280) with a plurality of ultrasonic height measuring transceivers (10), which are connected to respective ends of said shearing device (40/280), such that the receiver (85) can send an averaged signal to the proximity control device to proportionally control the height and slope of the shearing device in response to elevational changes in the reference surface (170). See col. 5, lns. 24-52; col. 23, ln. 43-col. 24, ln. 44; See Fig. 20.b Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the drag box of Horner, with an ultrasonic height control assembly, as taught by Middleton et al., in order to increase the smoothness of the formed asphalt.

In regards to Claim 20 Horner discloses the distribution device (36) comprises at least one auger.

In regards to Claim 22 Horner discloses a method of leveling a surface using a drag box (28) comprised of a distribution device (36), a shearing device (38) and a proximity control device (30/32) for raising and lower said shearing device. Said method comprising:

Pulling said drag box (28) in a direction of travel

Applying an asphalt mixture to said surface while said drag box is moving.

Adjusting the height of the shearing device by manual, operator input.

~~Leveling said asphalt mixture using said shearing device.~~

Wherein said steps are accomplished in a single pass.

See col. 6, ln. 66-col. 7, ln. 38.

What Horner does not disclose is adjusting the height of the shearing device so that it is raised and lowered as the elevation of the reference surface changes.

However, Middleton et al., teaches it is desirable to adjust the height of a shearing device (280) in response to changes in the elevation of a reference surface. See col. 26, lns. 10-33.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method of leveling asphalt of Horner, with the method step of adjusting the height of the shearing device in response to changes in the

elevation of a reference signal, as taught by Middleton et al., in order to make a smoother transition from one paving level to another. See col. 23, Ins. 50-58; col. 26, Ins. 10-33.

In regards to claims 23-26 Horner discloses in the method that the surface (170/300) can be a ground surface and the asphalt mixture can be substantially diluent-free, such as asphalt or the like. What Horner does not disclose is the method steps of measuring the elevation of the surface (170/300) using a signal generator. However, Middleton et al. teaches it is known to provide a plurality of ultrasonic transceivers (10) to the outer ends of a blade (280) of a grader (30) or paver (180), in order to measure the elevation/altitude of a ground surface (170/300), which is used as a reference surface and process said signals using a signal receiver (85), in order to control the height of a shearing device forming the asphalt. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method of leveling asphalt of Horner, with the method step of measuring the elevation of a reference surface and processing the signal, as taught by Middleton et al., in order to make a smoother transition from one paving level to another. See col. 23, Ins. 50-58; col. 26, Ins. 10-33.

In regards to Claims 27-30 Horner discloses distributing an asphalt mixture with a distribution device (36), that has at least one auger. Stopping said drag box from moving in said direction of travel. Manually controlling said shearing device while said drag box is stopped. Moving said drag box in said direction of travel.

Wherein substantially planar movement of said shearing device is maintained during said stopping and moving steps. See col. 6, ln. 66-col. 7, ln. 23.

3. Claims 1-8, 15, 18, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks # 6,079,901 in view of Ferguson et al. # 5,201,604.

Banks discloses a prime mover (12) for pulling a drag box assembly (36), including confinement ends having skis (see Fig. 2); for placing an asphalt mixture on a surface to be paved, said drag box comprising:

A 1st device (24) for distributing said asphalt mixture over said surface.

A 2nd distributing device (30, 34) for further distributing the paving material.

A shearing device (36) for further spreading said asphalt mixture over said surface (22).

A proximity control device (in the form of a hydraulic cylinder, illustrated below station 22, in fig. 2) for raising and lowering the shearing device (36). See cols. 3-4.

Wherein said shearing device (36) is a variable width screed.

What Banks does not disclose is the use of a distance measuring device able to raise and lower the shearing device in response to changes in the surface to be paved.

However, Ferguson et al. discloses a sonic grade control assembly (26) for a paver (10) comprising: A plurality of signal generators (22) associated with a proximity control

device (19) and a signal receiver (23), wherein a shearing device (17) can be raised and lowered in response to signals from the generators (22), that are indicative of changes in a surface (35) to be paved, thereby providing a smoother formed-asphalt road surface (38). See col. 6, ln. 24-col. 7, ln. 33. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the paving machine of Banks with a sonic grade control assembly, as taught by Ferguson et al. in order to form a smoother traffic surface.

In regards to Claims 8, 18, 20, 21 Banks discloses the 1st distribution device (24) comprises a plurality of 12" augers (38.1-38.4), of which at least 2 counter-rotate for mixing and distributing asphalt upon said road surface and the 2nd distributing device (30, 34) further comprises a single 12" auger (34). Although Banks does not explicitly recite how far the auger (34) is spaced from the shearing device (36); Banks clearly illustrates in Fig. 2, the 12" auger is spaced a distance; less than the radius of the 12" auger. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to distance the auger (34) and the shearing device (36) less than 1" apart, as taught by Banks, in order to maximize the uniformity and homogeneous characteristics to the just augured asphaltic mixture, before compaction by the shearing device. See Col. 3, ln. 49-col. 4, ln. 23.

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4. Claims 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banks # 6,079,901 in view of Ferguson et al. # 5,201,604, as applied to Claim 1 above and further in view of Richter # 6,033,147.

Banks in view of Ferguson et al. discloses a sonically controlled paving machine, wherein the ultrasonic sensors can be calibrated to form a desired paving thickness, for example 6". See Ferguson et al. Col. 6, Ins. 41-59. What Banks in view of Ferguson et al, do not disclose is the minimum thickness to which asphalt can be paved.

However, Richter teaches that asphalt paved roadways often comprise multiple layers of varying thicknesses (d1, d2). Richter further teaches that each layer can vary between 2 cm and 8 cm forming a total pavement thickness between 8cm and 14cm.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use the paving machine of Banks in view of Ferguson et al., to

form asphalt layers between 1-6", as taught by Richter, in order to meet required specifications for roadway layer thickness. See Richter Col. 1, Ins. 39-55.

5. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sehr et al. # 5,258,961 in view of Kieranen et al. # 6,227,761 B1.

Sehr et al. discloses a sonically controlled paving machine having a shearing device (8) that is raised and lowered by a hydraulic cylinder based on signals from ultrasonic sensors indicative of the distance to a reference surface. What Sehr et al. does not disclose is providing the shearing device (8) with a concave strike blade. However, Kieranen et al. teaches a sonically controlled paving machine having a shearing device

(28) are advantageously provided with an auger (36), and a concave strike blade (32) in the form of a plow. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the paving machine of Sehr et al., with a shearing device, as taught by Kieranen et al., in order to control the amount of paving material distributed in front of the spreading auger. See Figs. 9a-c; Col. 6.

6. Claims 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sehr et al. # 5,258,961 in view of Paetzold 6,036,353.

Sehr et al. discloses a paving machine having a hopper (unnumbered) and a distribution device (8) in the form of a conveying auger. What Sehr et al. does not disclose is the use of a pugmill. However, Paetzold teaches a paving machine can be advantageously provided with a unitized pugmill distribution device, in order to mix and distribute hot and cold mix asphalt for paving a roadway, due to the pug mill's ability to mix asphalt compositions with a high degree of accuracy. See col. 4, lns. 41-47.

Therefore, it would have been obvious to provide the paving machine of Sehr et al., with a pugmill distribution device, as taught by Paetzold, in order to maximize the homogenous characteristics of the mixed asphalt.

Response to Amendment

7. Applicant's amendment to claim 8 has overcome the 35 U.S.C. 112 issue raised in the Last Office Action.

Response to Arguments

8. Applicant's arguments filed 04/07/2005 have been fully considered but they are not persuasive.

Applicant suggests the claims are not anticipated or obvious in view of Sehr, and supports the suggestion by stating "Sehr does not disclose or suggest a proximity control device for directly raising and lowering a shearing device in response to elevational changes in a surface...Instead the control signal of Sehr serves to adjust the height of the tie point 6 of tie arm 5 on road finishing machine 1".

However the Examiner does not concur.

In response to Applicant's argument that Sehr et al. includes additional structure not required by Applicant's invention, it must be noted that Sehr et al. discloses the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant.

Applicant's suggestion that "by adjusting the screed through a tow point rather than directly raising and lowering it, there is a lag time between when the tow point is adjusted and the angle of inclination of the screed is actually changed". Does not appear to be supported by any actual language disclosed by Applicant or the prior art. The suggestion appears to be opinion based, and not supported on any factual basis. Still further, nothing in the claims requires the angle of inclination of the screed to be changed. The claims only require a proximity control device intended "for directly

raising and lowering said shearing device". And does not limit the type, or how the proximity control device is capable of "directly raising and lowering the shearing device". Further, nothing in the claims require any structural feature to be directly connected to said shearing device.

Therefore, since it is unclear as to how the proximity control device is capable of directly raising and lower the shearing device, since the claims do not require anything, capable of moving the shearing device to be connected to said shearing device.

Hence, the argument is not persuasive and the rejection is maintained.

Applicant argues that claims 9 and 19 are not obvious over Sehr in view of Kieranen by stating "~~Sehr does not disclose a shearing device... Sehr does not disclose or suggest a~~ strike blade...that is concave". Applicant further argues "(Kieranen)...cannot be considered to teach or suggest Applicant's shearing device...Plow 32 of Kieranen cannot be considered to disclose or suggest Applicant's strike blade...is for further distributing an asphalt mixture over a surface after it has been initially distributed by a distribution device such as an auger...plow 32 of Kieranen is positioned on a leading side⁴¹ of contouring assembly 28 and serves to push excess concrete away from auger 36".

However, the Examiner does not concur.

Applicant's arguments are based on actual claim language, and hence cannot be used to show non-obviousness, based on Applicant's belief the prior art does not teach what

is not claimed. Applicant's suggestion that an intended use of a device or feature, is some how patentably distinguishable, over the prior art, does not apply when the intended use is not cited in the actual claim language.

Applicant is reminded Claims 9 and 10 only require "wherein said shearing device is a strike blade and said blade is concave with respect to the direction of travel", is silent with respect to where the "strike blade" is disposed with respect to any other feature of the claimed device.

Therefore, Applicant's arguments are not persuasive and the rejection is maintained.

Applicant then argues "A *prima facie* case of obviousness for rejecting claims 1-7, 9, 11-15, 20, 22-30 has not been established".

Applicant then suggests "Horner does not disclose or suggest a drag box that includes a distribution device **and** a shearing device as claimed by Applicant in independent claims 1 and 22...Hopper 36 of Horner is not part of a drag box...Instead, it is supported by a set of ground engaging wheels 40...the hopper 36 does not include any type of device for distributing an asphalt mixture over a surface...Hopper 36 does not disclose or suggest the distribution device claimed...Moldboard 28 in no way can be said to be acting to distribute paving material...Accordingly, moldboard 28 does not disclose or suggest the distribution device claimed".

However, the Examiner does not concur.

Nothing in claim 1 defines structural features of the claimed "drag box".

The drag box comprising a distribution device, and a shearing device, do not provide any basis to determine what is within the scope or an equivalent to the claimed distribution device or a shearing device. Rather the features claimed are defined by the functions they perform

Hence, any feature disclosed by the prior art, that is capable of "distributing an asphalt mixture over a surface" can be considered equivalent to Applicant's claimed distribution device. Likewise, any feature disclosed by the prior art, that is capable of "further distributing said asphalt mixture over said surface" can be considered equivalent structure to Applicant's claimed distribution device.

To that affect, the function of any paving machine hopper is to distribute paving material over a roadway. Still further, in contradiction to Applicant's suggestion "hopper 36 does not include any type of device for distributing an asphalt mixture over a surface"

It must be noted that Horner explicitly recites "a material distribution attachment comprising two primary components, i.e., a distribution hopper 36 at the front of the machine and a screed 38 attached to moldboard 28 in the middle of the machine". See col. 3, lns. 35-40

Further, Horner discloses "Outlet 70 is controlled by a pair of side-by-side metering gates 72 and 74 that are independently shiftable along inclined paths of travel parallel to bottom wall 56 between positions opening and closing respective left and right halves of outlet 70. In FIGS. 2, 6 and 7, gates 72 and 74 are shown in their open position". See Col. 4, lns. 1-5. Therefore, the argument is not persuasive and the rejection is maintained.

Applicant then argues "Screed 38 cannot be considered to disclose or suggest Applicant's claimed shearing device...Applicant's claimed shearing device has a limited surface area so as to be able to distribute and level an asphalt mixture through a shearing motion, as claimed in claims 1 and 22, rather than grabbing and pulling a viscous mix, as is done by a screed".

However, the Examiner does not concur.

Nothing in the claims require a "shearing device has a limited surface area so as to be able to distribute and level an asphalt mixture through a shearing motion".

The limitation does not exist, hence the argument is not persuasive because it is not directed to actual claim language and hence does not show how Applicant's claims patentably distinguish over the prior art.

The fact all screed plates are disposed on the paving material and "dragged across" the material to form a smooth surface, the "dragging" aspect of the process causes the smooth surface to be formed by a "shearing force" generated by dragging the screed plate across the paving material, does make a screed plate, or any "dragged plate" equivalent to Applicant's claimed "shearing device", until such is more narrowly claimed, by description of specific structural features, which does not occur until dependent claims 9, 10, as argued by Applicant.

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Applicant then argues "Cylinders 30 and 32 of Horner cannot be considered...claimed proximity control device...act so as to change the left to right tilt of the moldboard 28. They do not act to raise and lower screed 38".

However, the Examiner does not concur.

As put forth in the Last Office Action, Cylinders (30, 32) are only 2 components of the patented invention. Further, nothing in the prior art would suggest the cylinders are limited to "change the left to right tilt of the moldboard 28, as argued. Rather, Horner explicitly recites "as is conventional, moldboard 28 can be adjusted upwardly and downwardly by a pair of left and right cylinders 30 and 32". See Col. 3, Ins. 19-22. Hence, Applicant's arguments are not persuasive and the rejection is upheld.

Applicant then argues "Horner does not disclose the use of a distance measuring device...Middleton is cited for teaching a device that is able to produce repeated signals...However, follower 10 of Middleton is not associated with a proximity control device...as claimed...in claims 1 and 23...IN addition Middleton fails to disclose...a distribution device **and** a shearing device".

However, the Examiner does not concur.

Middleton explicitly recites " (5) The operator then powers up the system of the invention from the control box 80, at which time the transducer 130 contained in the follower 10 emits an acoustic chirp, i.e. a series of acoustic pulses, which travels to the reference surface 170 (or 181 or 190) and is reflected back to the follower 10. In a manner to be described below, the total time of travel for the chirp to echo back to the follower 10 is detected, by stopping a counter which was started when the chirp was emitted.

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In the preferred embodiment, two counters are used. This count of the counter when it is stopped comprises a total travel time value for the chirp. The microprocessor 100 uses this time value to control the blade level and to calibrate the system, i.e., achieve a "lock-on" to the desired depth. Thereafter, as the operator drives the grader

30, the follower 10 continues to emit acoustic chirps, thus detecting any change in the level of the reference surface 170. If, for instance, the level of the surface 170 rises, the follower circuitry detects this, and sends a signal to the hydraulic valve system 70 instructing it to raise the blade 40 and frame 20, such that a constant distance is maintained between follower 10 and the surface 170, thus ensuring that the blade 40 remains at a constant depth or offset relative to the surface 170. In this manner, the ground surface 160 is graded to a constant offset from the surface 170.

Hence, it appears as though Middleton does in fact teach the use of distance

measuring devices (10, 15), associated with a microprocessor (100) and cylinders (30, 32) to directly raise and lower the shearing device, in the form of a blade (40).

Further, Middleton was not cited for its teaching of a distribution device and a shearing device, as argued. Rather, Middleton was cited for its teaching of a proximity control device capable of raising and lower an implement, in this case a concave shearing device, in the form of strike blade (40). Hence, one cannot show non-obviousness by arguing a secondary reference does not teach what is already disclosed by the primary reference.

Therefore, Applicant's arguments are not persuasive and the rejection is maintained.

Applicant then argues "claims 2-21 and 23-30 are not obvious over Horner in view of Middleton for the same reasons that claims 1 and 22 are not obvious".

However, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant then argues "the combination of Horner and Middleton does not disclose or suggest confinement ends coupled with an **initial** distribution device as claimed...in claim 3".

However, the Examiner does not concur.

Claim 3 recites "further comprising: confinement ends coupled with said distribution device for containing said asphalt mixture within said apparatus".

The claim is silent with respect to an "initial distribution device". Hence, it appears as though the arguments are not directed to actual limitations in the claims.

Further, Horner explicitly discloses the use of confinement ends (192) in col. 6, lns. 45-65; Figs. 2-4.

The fact Applicant argues "upright shields 192 and 194 of Horner are only associated with screed 38 and do not confine the material as it is dispensed from hopper 36" is irrelevant, since such is not an actual limitation in any of the claims.

Therefore, the arguments are not persuasive and the rejection is maintained.

Applicant also argues "Horner and Middleton also does not disclose or suggest confinement ends that include skis, as claimed...in claim 4".

However, Applicant is directed to Fig. 3, which clearly illustrates a confinement end (192) comprising, resting upon a ski, unnumbered, which extends forward to back and is wider than the confinement end plate (102).

Hence, the argument is not persuasive and the rejection is maintained.

Applicant then argues "Horner and Middleton does not teach or suggest signal generators that are coupled with confinement ends, as claimed, in claim 13".

However, Horner discloses a shearing device comprising confinement ends (192)

having skis mounted thereto, the ends (192, 194) being mounted to the longitudinal ends of the shearing device. See Figs. 2-3. Middleton teaches it is known to mount electronic distance measuring devices (10, 15) to the ends of a shearing device (40), to control raising, lowering and tilt of the shearing device, so that the operator can focus on driving the apparatus. Hence, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the shearing device of Horner, with end mounted distance measuring devices, as taught by Middleton et al. in order to automate previously manual operations.

Therefore, the argument is not persuasive and the rejection is maintained.

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Applicant then argues Claims 1-8, 15, 18, 20 and 21 are not disclosed or suggested by...Banks et al...in view of...Ferguson et al....do not disclose...a device for distributing an asphalt mixture over a surface **and** a shearing device for further distributing the asphalt...Instead, Banks discloses spreading augers and a variable width screed 36..Banks does not disclose the use of a distance measuring device able to raise and lower a shearing device".

However, as cited by Applicant Banks does in fact disclose a distributing device, in the form of spreading augers, and a shearing device in the form of a variable width screed, which perform the claimed functions.

Further, although Banks does not disclose a distance measuring device, Banks was not cited for disclosing a distance measuring device. Rather Ferguson was cited for its teaching of a proximity control device comprising at least one sensor (22) mounted to a tow bar, and associated with at least one cylinder (19) for directly raising and lowering the screed plate (17).

The fact Applicant argues "Cylinder 19...instead indirectly moves screed 17 via a tow point" is irrelevant, since the claims do not required any physical connection between the claimed cylinder and the claimed shearing device. The claims do not limit the types or number of features disposed between the claimed cylinder and the claimed shearing device. The claims only require a proximity control device capable of directly raising and lowering the shearing device.

Which is disclosed by the prior art. See Ferguson Fig. 1; col. 7, ln. 17-col. 8.

Therefore, the argument is not persuasive and the rejection is maintained.

Applicant then argues "For the reasons discussed above claims 16 and 17 are not discloses or suggested by the combination".

However, nothing in the "above arguments" directly address claims 16 and 17.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant then argues "Applicant disputes is that it is obvious to use the drag box of claim 1 to distribute and shear asphalt mixtures that are the thicknesses specified in claims 16 and 17...Richter is not properly combinable with Banks of Ferguson, as both of these references suggest only one layer of asphaltic surfacing...no motivation to combine the total pavement thickness of two layers of asphaltic surfacing with reference that disclose a paving machine for making a single layer of asphaltic surfacing.

However, the Examiner does not concur.

Nothing in the claims require the apparatus to be modified in any way to form more than one layer of asphalt.

Further, Richter was cited for its teaching that asphalt layers are known to be formed in a variety of thicknesses as illustrated and taught in col. 1, lns. 39-55 which specifically

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recite "Generally, the surface courses are laid to a thickness of 4 cm. The nominal thicknesses of the binder and asphalt base courses vary depending on the building regulations applying to the construction class, such as RStO 86/89. Arand et al.: Investigation of the Efficiency of High Performance Compaction Beams Through Field Measurements on Rolling Construction Sites, Road and Motorways, Bonn 41 (1990) No. 5, pp. 215-219.

Hence, since state and federal regulations mandate road layers be of specific thickness ranges, it would have been obvious to one of skill in the art to use the paving apparatus of Banks in view of Ferguson et al., to form paving layers having a thickness between 1-6", as taught by Richter, in order to satisfy mandated requirements for thickness and strength.

Therefore, the argument is not persuasive and the rejection is maintained.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (571) 272-6986. The examiner can normally be reached on Monday-Saturday from 7:00 am to 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (571) 272-6998.

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Group 3600

RWA
6/27/2005